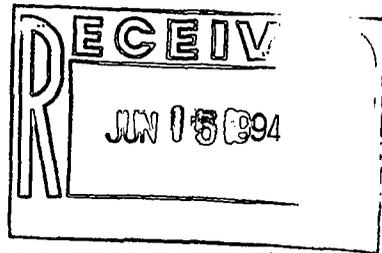




412404



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE:

SUBJECT: Review of Region V CLP Data
Received for Review on May 17, 1994

FROM: Charles T. Elly, Director (SL-10C) *for CT Elly*
Central Regional Laboratory *6/3/94*

TO: Data User: B+V

We have reviewed the data for the following case.

SITE NAME: Ave. O + 118th St (IL)

CASE and/or SAS NUMBER: 21882 SDG NUMBER: MEJX85

Number and Type of Samples: 4 (soil/water)

CLP Sample Numbers: MEJX 85-87, 91

CLP Laboratory: ITAS Hrs. for Review 7.0

+1.2 T.H.

Following are our findings:

*Data are acceptable for use with qualifications
See attached data review for detail.*

*B. Garcia
6/3/94*

- Data are acceptable for use.
- Data are acceptable for use with qualification.
- Data are preliminary, pending verification by laboratory.
- Data are unacceptable.

cc: Edward Kantor, EMSL-Las Vegas
Julie Frankel, VIAR & Co. (SMO)

NARRATIVE

SITE: AVE. 0 +118th ST. (IL)
LABORATORY: ITAS

CASE: 21882
SDG: MEJX85

The laboratory's portion of case 21882 contains 1 low level water and 3 low level soil samples assayed for total metals and total cyanide. The following narrative lists the out of control audits and their possible effects on the results.

EVIDENTIAL AUDIT: All forms are originals. All of the raw data sheets are originals. The original sample tags, the original Federal Express airbill and the original chain of custody forms are present.

It should be noted that the one water sample associated with this case is a field rinsate blank and is not contractually required to have spike or duplicate QC audits performed on it. However, other QC audits were performed on this sample and will be discussed below as necessary.

All forms are present and in the order indicated on the Form DC-2 [inventory sheet].

SOIL SAMPLES: [MEJX85-87]

ICP ANALYSES:

The soil duplicate RPD for Al (40.4%) is out of control. Al data are estimated (J) due to poor precision.

The soil duplicate RPDs for Ba (36.4%), Cr (40.5%), Cu (40.2%), Mg (47.7%) and Ni (200.0%) were not flagged by the laboratory because the duplicate differences did not exceed the technical criterion (2xCRDL) for soil samples. Ba, Cr, Cu, Mg and Ni data are acceptable.

Reviewed by: Matthew A. Knopp Matthew A. Knopp, Lockheed/ESAT
Date: 5-24-94

SOIL SAMPLES: [MEJX85-87] (Cont.)

ICP ANALYSES: (Cont.)

The soil duplicate RPD for Fe (32.1%) was flagged by the laboratory however, the duplicate difference does not exceed the technical criterion ($\pm 35\%$) for soil samples. Fe data are acceptable.

The soil duplicate RPD for Mn (43.2%) is out of control. Mn data are estimated (J) due to poor precision.

The soil serial dilution audit on Ca (10.7%) and Zn (15.0%) are out of control. Ca and Zn data are estimated (J) due to interference.

GFAA ANALYSES:

The soil duplicate RPD for Pb (22.1%) was flagged by the laboratory however, the duplicate difference does not exceed the technical criterion ($\pm 35\%$) for soil samples. Pb data are acceptable.

The soil matrix spike recovery for Se (67.9%) is out of control. The Se results for MEJX85 and MEJX86 were flagged (W) by the laboratory. Se data on MEJX86 is estimated (J) due to low bias and interference. Se data on MEJX85 is estimated (UJ) due to possible elevation of the detection limit and interference. Se data on MEJX87 is estimated (UJ) due to possible elevation of the detection limit.

OTHER ANALYSES:

All Hg and CN data are acceptable.

Sample MEJX91 is a field blank that does not show any contamination.

NOTE: No field duplicates were associated with case 21882 SDG: MEJX85.

Reviewed by: Matthew A. Knopp Matthew A. Knopp, Lockheed/ESAT
Date: 5-24-94

WATER SAMPLE(S): [MEJX91]

NOTE: MEJX91 is a field rinsate blank and is not contractually required to have duplicate and/or spike audits run on it. However, a water preparation blank and analytical spikes were run on it and sample MEJX91 is qualified by the data generated from these audits. Sample MEJX91 is the only water sample with this case and is not used to qualify any other water data.

ICP ANALYSES:

The water preparation blank contains Ba (7.270 $\mu\text{g/L}$) and Ca (34.720 $\mu\text{g/L}$). The CCB contains Ba (0.5 $\mu\text{g/L}$). Ba and Ca data on MEJX91 are estimated (J) due to contamination.

GFAA ANALYSES:

The As and Se results for MEJX91 were flagged (W) by the laboratory and are estimated (UJ) due to interference.

OTHER ANALYSES:

All Hg and CN data are acceptable.

Reviewed by: Matthew A. Knopp Matthew A. Knopp, Lockheed/ESAT
Date: 5-24-94

ESAT-5-041.1

DATA QUALIFIER DEFINITIONS

For the purpose of defining the flagging nomenclature utilized in this document, the following code letters and associated definitions are provide:

- U Indicates the material was analyzed, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.
- J Indicates the associated value is an estimated quantity.
- R Indicates the data are unusable. (Note: The analyte may or may not be present.)
- UJ Indicates the material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
- E Indicates the reported value is estimated because of the presence of interferences. An explanatory note shall be included under Comments on the Cover Page (if the problem applies to all samples) or on the specific FORM I-IN (if it is an isolated problem).
- M Indicates duplicate injection precision is not met.
- N Indictaes the spike sample recovery is not within control limits.
- S Indicates the reported value was determined by the Method of Standard Addition (MSA).
- W Indicates the post-digestion spike for furnace AA analysis is out of control limits (85%-115%), while sample absorbance is less than 50% of the spike absorbance.
- + Indicates the correlation coefficient for the MSA is less than 0.995.
- * Indicates the duplicate analysis is not within control limits.

Note: Entering "S", "W" or "+" is mutually exclusive. No combination of these qualifiers can appear in the same field for an analyte.

QC EXCEPTION SUMMARY REPORT

CASE\SAS#: 21882
 DATA SET: MEJX85
 LAB QC #
 DATE: 5-18-94

SITE: Ave. Of 118th St. (TL) MATRIX: SOIL/WATER WATER SAMPLE SPK:
 LAB: ITAS CONC: Low WATER SAMPLE DUP:
 REVIEWED BY: M. Knopp SOIL SAMPLE SPK:
 SOIL SAMPLE DUP:

FORM #	FORM 1	FORM 2	FORM 3	FORM 3	FORM 3	FORM 3	FORM 4	FORM 5	FORM 6	FORM 7	FORM 7	FORM 9	FORM 9	FORM 6	FORM 6	FIELD	FIELD	FIELD	FIELD	CFAA	CFAA	
ELEMENT	BOLD TDR	INITIAL CALIB	CONTIN CALIB	CALIB BLANK	PREP WATER BLANK	PREP SOL. BLANK	IC'S %R	SOIL SPIKE %R	SOIL DUP %R	LCS AQ	LCS SOL.	SERIAL DILUTION ANALYSIS	SERIAL DILUTION SOL.	AD DUP %R	AD SPIKE %R	BLANK	DUP %R	BLANK	DUP %R	DUP	ANALYT	SPK
ALUMINUM	OK	OK	OK				OK	✓(46.4)	OK	OK	OK											
ANTHRACENE				31.9																		
ARSENIC																						
BARIUM				✓(0.5)	✓(7.270)	NOTE		✓(36.4)	EXC							✓						
BERYLLIUM																						
CADMIUM																						
CALCIUM					✓(34.720)	7416										✓(10.7)						
CHROMIUM								✓(40.5)	EXC													
COBALT																						
COPPER								✓(40.2)	EXC													
IRON					✓(22.000)			✓(32.1)	EXC													
LEAD								✓(22.1)	EXC													
MAGNESIUM								✓(47.7)	EXC													
MANGANESE					✓(230)			✓(43.2)														
MERCURY				✓(0.5)	NOTE																	
NICKEL								✓(200.0)	EXC													
POTASSIUM																						
SELENIUM								✓(67.9)														
SILVER																						
SODIUM																						
THALLIUM																						
TIN																						
VANADIUM																						
ZINC																✓(16.0)						
CYANIDE	✓	✓	✓				✓			✓	✓	✓	✓									

Water
Ba(0.5) MEJX91

Soil

PBW
Ba(7.270) MEJX91
N. (24170) MEJX91

PBS



United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Inorganic Traffic Report & Chain of Custody Record

(For Inorganic CLP Analysis)

SAS No.
(if applicable)

Case No.

21882

1. Sample Description (Enter in Column A) 1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify)	2. Preservative (Enter in Column D) 1. HCl 2. HNO3 3. NaOH 4. H2SO4 5. K2CR2O7 6. Ice only 7. Other (Specify) N. Not preserved	3. Region No. V	Sampling Co. BUWST	5. Date Shipped 4/11/94	Carrier Fed. Express	7. Date Received 04-12-94	Received by Sue Johnson
		Sampler (Name) Wade Gregor		Airbill Number 8774360416		Laboratory Contract Number 60D30049	Unit Price 105.00
		Sampler Signature Wade A. Gregor		6. Ship To ITMO St. Louis Laboratory 13715 Rider Trail North Earth City, MO 63045		8. Transfer to	
4. Type of Activity		Remedial		Removal		Received by	
SF <input type="checkbox"/> Lead <input checked="" type="checkbox"/> Pre-Remedial <input type="checkbox"/> RIFS <input type="checkbox"/> CLEM <input type="checkbox"/> PRP <input type="checkbox"/> PA <input type="checkbox"/> RA <input type="checkbox"/> REMA <input type="checkbox"/> ST <input type="checkbox"/> SSI <input type="checkbox"/> O&M <input type="checkbox"/> REM <input type="checkbox"/> FED <input type="checkbox"/> LSF <input checked="" type="checkbox"/> NPLD <input type="checkbox"/> UST <input type="checkbox"/>		ATTN: Bob Cowart		Contract Number		Price	

CLP Sample Numbers (from labels)	A Enter # from Box 1	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E - RAS Analysis							F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Org. Samp. No.	K Sample Condition on Receipt	L High Conc. Phases (Check below)			
					Metals		Cyanide	Low Conc. only		High only								Solids	Water - MIS Lq.	Non Water - MIS Lq.	
					Total	Dissolved		Nitrate/Nitrite	Fluoride	pH	Conductivity										
MEJX85	5	L	G	6	X	X						5-021004	AV-ST01-001	4/11/94 1345	EWX 45						
MEJX86	5	L	G	6	X	X						5-021008	AV-ST02-001	4/11/94 1420	EWX 46						
MEJX87	5	L	G	6	X	X						5-021012	AV-ST03-001	4/11/94 1445	EWX 47						
MEJX 91	4	L	G	2	X							5-021017	AV-RB01-20	4/11/94 1225	EWWS1	pH 1					
MEJX 91	4	L	G	3		X						5-021018	AV-RB01-201	4/11/94 1225	EWWS1	pH 13					

100% of full
↓

Shipment for Case complete? <input checked="" type="checkbox"/> (Y/N)	Page 1 of 1	Sample used for a spike and/or duplicate MEJX85	Additional Sampler Signatures <i>[Signature]</i>	Chain of Custody Seal Number 153155, 153156
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CHAIN OF CUSTODY RECORD

Relinquished by: (Signature) Wade A. Gregor	Date / Time 4/11/94 1925	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received by: (Signature) 0000298	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Sue Johnson	Date / Time 04-12-94 0900	Remarks Is custody seal intact? <input checked="" type="checkbox"/> Y/N/none	

EPA Form 9110-1 (Rev. 5-91) Replaces EPA Form (2075-8), previous edition which may be used
DISTRIBUTION:
Green - Region Copy Pink - SMO Copy White - Lab Copy for Return to Region Yellow - Lab Copy for Return to SMO

Split Samples Accepted (Signature)
 Declined

CLR 46 Temp. 6°

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS

2492

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: ITAS_ST._LOUIS_____ Contract: 68D30049__
Lab Code: ITMO__ Case No.: 21882 SAS No.: _____ SDG No.:MEJX85
SOW No.: ILM03.0

EPA Sample No.
MEJX85
MEJX85D
MEJX85S
MEJX86
MEJX87
MEJX91

Lab Sample ID
MEJX85
MEJX85D
MEJX85S
MEJX86
MEJX87
MEJX91

RECEIVED
MAY 17 1994

US EPA CENTRAL REGIONAL LAB.
536 S. CLARK ST.
CHICAGO, ILLINOIS 60605

Were ICP interelement corrections applied ? Yes/No YES
Were ICP background corrections applied ? Yes/No YES
If yes - were raw data generated before application of background corrections ? Yes/No NO_

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee as verified by the following signature.

Signature: Waide H. Price
Date: 5/16/94

Name: WAIDE H. PRICE
Title: PROJECT MANAGER

0000003

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEJX86

Lab Name: ITAS_ST._LOUIS _____ Contract: 68D30049 _____

Lab Code: ITMO _____ Case No.: 21882_ SAS No.: _____ SDG No.: MEJX85

Matrix (soil/water): SOIL_ _____ Lab Sample ID: MEJX86

Level (low/med): LOW_ _____ Date Received: 04/12/94

% Solids: _____ 19.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6400	-	*	P
7440-36-0	Antimony	45.3	B		P
7440-38-2	Arsenic	8.2	B		F
7440-39-3	Barium	127	B		P
7440-41-7	Beryllium	0.85	B		P
7440-43-9	Cadmium	4.7	B		P
7440-70-2	Calcium	37400	-	E	P
7440-47-3	Chromium	430	-		P
7440-48-4	Cobalt	7.5	B		P
7440-50-8	Copper	79.7	-		P
7439-89-6	Iron	21900	-	*	P
7439-92-1	Lead	262	-	*	F
7439-95-4	Magnesium	14600	-		P
7439-96-5	Manganese	467	-	*	P
7439-97-6	Mercury	0.48	B		CV
7440-02-0	Nickel	35.6	B		P
7440-09-7	Potassium	3270	U		P
7782-49-2	Selenium	1.9	B	WN	F
7440-22-4	Silver	3.5	U		P
7440-23-5	Sodium	509	B		P
7440-28-0	Thallium	0.72	U		F
7440-62-2	Vanadium	34.4	B		P
7440-66-6	Zinc	664	-	E	P
	Cyanide	1.9	B		AS

J *unk*
 J *unk*
 J *unk*
 J *unk*
 J *unk*

0000005

Color Before: BLACK _____ Clarity Before: _____ Texture: MEDIUM

Color After: COLORLESS _____ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEJX91

Lab Name: ITAS_ST._LOUIS _____ Contract: 68D30049__

Lab Code: ITMO__ Case No.: 21882_ SAS No.: _____ SDG No.: MEJX85

Matrix (soil/water): WATER Lab Sample ID: MEJX91

Level (low/med): LOW__ Date Received: 04/12/94

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	24.3	U		P
7440-36-0	Antimony	26.5	U		P
7440-38-2	Arsenic	0.70	U	W	F
7440-39-3	Barium	1.2	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	2.8	U		P
7440-70-2	Calcium	95.0	B		P
7440-47-3	Chromium	2.9	U		P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	3.4	U		P
7439-89-6	Iron	14.5	U		P
7439-92-1	Lead	0.40	U		F
7439-95-4	Magnesium	83.0	B		P
7439-96-5	Manganese	1.2	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	12.1	U		P
7440-09-7	Potassium	3170	U		P
7782-49-2	Selenium	1.8	U	W	F
7440-22-4	Silver	3.4	U		P
7440-23-5	Sodium	107	B		P
7440-28-0	Thallium	0.70	U		F
7440-62-2	Vanadium	2.9	U		P
7440-66-6	Zinc	4.2	B		P
	Cyanide	1.4	U		AS

0000007

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

3
BLANKS

Lab Name: ITAS_ST._LOUIS _____ Contract: 68D30049__
 Lab Code: ITMO__ Case No.: 21882_ SAS No.: _____ SDG No.: MEJX85
 Preparation Blank Matrix (soil/water): SOIL_
 Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

0000014

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
		C	1	C	2	C	3	C		C	
Aluminum	24.3	U	24.3	U	24.3	U	24.3	U	4.860	U	P
Antimony	26.5	U	31.4	B	26.5	U	26.5	U	5.300	U	P
Arsenic	-1.2	B	-1.2	B	-1.1	B	-0.7	B	-0.228	B	F
Barium	0.3	U	0.3	U	0.5	B	0.3	U	0.092	B	P
Beryllium	-0.4	B	0.3	U	0.3	U	0.3	U	0.060	U	P
Cadmium	2.8	U	2.8	U	2.8	U	2.8	U	0.560	U	P
Calcium	20.0	U	20.0	U	20.0	U	20.0	U	7.416	B	P
Chromium	-5.3	B	-5.1	B	-5.1	B	-5.5	B	-0.904	B	P
Cobalt	3.2	U	3.2	U	3.2	U	3.2	U	0.640	U	P
Copper	3.4	U	3.4	U	-4.0	B	3.4	U	0.680	U	P
Iron	-29.5	B	-20.6	B	-21.9	B	-21.1	B	-3.464	B	P
Lead	0.4	U	-0.7	B	0.4	U	-0.4	B	0.080	U	F
Magnesium	56.3	U	56.3	U	56.3	U	56.3	U	11.260	U	P
Manganese	1.2	U	1.2	U	1.2	U	1.2	U	0.240	U	P
Mercury	0.3	U	0.1	U	0.1	U			0.050	U	CV
Nickel	12.1	U	12.1	U	12.1	U	12.1	U	2.420	U	P
Potassium	3170.0	U	3170.0	U	3170.0	U	3170.0	U	634.000	U	P
Selenium	1.8	U	1.8	U	1.8	U	1.8	U	0.360	U	F
Silver	3.4	U	3.4	U	3.4	U	3.4	U	0.680	U	P
Sodium	62.7	U	62.7	U	62.7	U	62.7	U	12.540	U	P
Thallium	0.7	U	0.7	U	0.7	U	0.7	U	0.140	U	F
Vanadium	2.9	U	2.9	U	2.9	U	2.9	U	0.580	U	P
Zinc	4.0	U	4.0	U	4.0	U	4.0	U	0.800	U	P
Cyanide	2.9	U	2.9	U	2.9	U			0.143	U	AS

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3
BLANKS

Lab Name: ITAS_ST._LOUIS_____ Contract: 68D30049__

Lab Code: ITMO__ Case No.: 21882_ SAS No.: _____ SDG No.: MEJX85

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L_

0000015

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
		C	1	C	2	C	3	C	C		
Aluminum			24.3	U					24.300	U	P
Antimony			26.5	U					26.500	U	P
Arsenic			-0.9	B	0.7	U			-1.070	B	F
Barium			0.4	B					7.270	B	P
Beryllium			0.3	U					0.300	U	P
Cadmium			2.8	U					2.800	U	P
Calcium			20.0	U	20.0	U			34.720	B	P
Chromium			-6.0	B					-5.110	B	P
Cobalt			3.2	U					3.200	U	P
Copper			3.4	U					3.400	U	P
Iron			-17.3	B					22.650	B	P
Lead			-0.7	B					-0.430	B	F
Magnesium			56.3	U					56.300	U	P
Manganese			1.2	U					2.310	B	P
Mercury	0.1	U	0.1	U	0.1	U			0.129	B	CV
Nickel			12.1	U					12.100	U	P
Potassium			3170.0	U					3170.000	U	P
Selenium			1.8	U					1.800	U	F
Silver			3.4	U					3.400	U	P
Sodium			62.7	U					62.700	U	P
Thallium			0.7	U	0.7	U			0.700	U	F
Vanadium			2.9	U					2.900	U	P
Zinc			4.0	U					4.000	U	P
Cyanide									1.450	U	AS

U.S. EPA - CLP

3
BLANKS

Lab Name: ITAS_ST._LOUIS_____ Contract: 68D30049__
 Lab Code: ITMO__ Case No.: 21882_ SAS No.: _____ SDG No.: MEJX85
 Preparation Blank Matrix (soil/water): _____
 Preparation Blank Concentration Units (ug/L or mg/kg): _____

0000016

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
		C	1	C	2	C	3	C		C	
Aluminum											NR
Antimony											NR
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead	0.4	U	0.4	U	0.4	U					F
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEJX85S

Lab Name: ITAS_ST._LOUIS

Contract: 68D30049

Lab Code: ITMO

Case No.: 21882

SAS No.:

SDG No.: MEJX85

Matrix (soil/water): SOIL

Level (low/med): LOW

% Solids for Sample: 7.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Aluminum							NR
Antimony	75-125	1367.4795	72.6027 U	1369.86	99.8		P
Arsenic	75-125	116.0000	9.8630 B	109.59	96.8		F
Barium	75-125	5669.0411	344.5479 B	5479.45	97.2		P
Beryllium	75-125	143.0411	0.8219 U	136.99	104.4		P
Cadmium	75-125	141.5342	7.6712 U	136.99	103.3		P
Calcium							NR
Chromium	75-125	611.0959	54.6849	547.95	101.5		P
Cobalt	75-125	1372.9041	8.7671 U	1369.86	100.2		P
Copper	75-125	795.6986	120.3014	684.93	98.6		P
Iron							NR
Lead		834.5205	681.9178	54.79	278.5		F
Magnesium							NR
Manganese	75-125	1679.2055	306.0548	1369.86	100.2		P
Mercury	75-125	7.6712	0.9041 B	6.85	98.8		CV
Nickel	75-125	1416.7671	33.1507 U	1369.86	103.4		P
Potassium							NR
Selenium	75-125	18.6027	4.9315 U	27.40	67.9	N	F
Silver	75-125	140.6027	9.3151 U	136.99	102.6		P
Sodium							NR
Thallium	75-125	121.8356	1.9178 U	136.99	88.9		F
Vanadium	75-125	1403.7534	40.4658 B	1369.86	99.5		P
Zinc	75-125	2271.0685	632.9041	1369.86	119.6		P
Cyanide	75-125	296.2478	4.3521 B	338.40	86.3		AS

Comments:

000018

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

MEJX85D

Lab Name: ITAS_ST._LOUIS Contract: 68D30049

Lab Code: ITMO Case No.: 21882 SAS No.: SDG No.: MEJX85

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 7.3 % Solids for Duplicate: 7.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S) C	Duplicate (D) C	RPD	Q	M
Aluminum		8943.5068	5937.7534	40.4	*	P
Antimony		72.6027 U	72.6027 U			P
Arsenic		9.8630 B	8.9315 B	9.9		F
Barium		344.5479 B	238.4932 B	36.4		P
Beryllium		0.8219 U	0.8219 U			P
Cadmium		7.6712 U	7.6712 U			P
Calcium	13698.6	29916.0274	21604.4932	32.3		P
Chromium	27.4	54.6849	36.2740	40.5		P
Cobalt		8.7671 U	8.7671 U			P
Copper	68.5	120.3014	80.0274	40.2		P
Iron		9384.6301	12975.1507	32.1	*	P
Lead		681.9178	851.2329	22.1	*	F
Magnesium		5118.0274 B	3147.3699 B	47.7		P
Manganese	41.1	306.0548	197.2603	43.2	*	P
Mercury		0.9041 B	0.8356 B	7.9		CV
Nickel		33.1507 U	41.0137 B	200.0		P
Potassium		8684.9315 U	8684.9315 U			P
Selenium		4.9315 U	4.9315 U			F
Silver		9.3151 U	9.3151 U			P
Sodium		1657.6164 B	1653.8904 B	0.2		P
Thallium		1.9178 U	1.9178 U			F
Vanadium		40.4658 B	32.6301 B	21.4		P
Zinc		632.9041	530.0274	17.7		P
Cyanide		4.3521 B	4.2835 B	1.6		AS

0000019

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10

Instrument Detection Limits (Quarterly)

Lab Name: ITAS_ST._LOUIS_____ Contract: 68D30049_
 Lab Code: ITMO___ Case No.: 21882_ SAS No.: _____ SDG No.: MEJX85
 ICP ID Number: _____ Date: 04/01/94
 Flame AA ID Number : _____
 Furnace AA ID Number : PE5100-1_____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead	283.30	BZ	3	0.4	F
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium	276.80	BZ	10	0.7	F
Vanadium			50		NR
Zinc			20		NR

0000028

Comments:

U.S. EPA - CLP

10

Instrument Detection Limits (Quarterly)

Lab Name: ITAS_ST._LOUIS_____ Contract: 68D30049__
 Lab Code: ITMO__ Case No.: 21882_ SAS No.: _____ SDG No.: MEJX85
 ICP ID Number: _____ Date: 04/01/94
 Flame AA ID Number : _____
 Furnace AA ID Number : PE5100-2_____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic	193.70	BZ	10	0.7	F
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

0000029

Comments:

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10
Instrument Detection Limits (Quarterly)

Lab Name: ITAS_ST._LOUIS_____ Contract: 68D30049__
 Lab Code: ITMO__ Case No.: 21882_ SAS No.: _____ SDG No.: MEJX85
 ICP ID Number: _____ Date: 04/01/94
 Flame AA ID Number : _____
 Furnace AA ID Number : PE5100-3_____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium	196.00	BZ	5	1.8	F
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

0000030

Comments:

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Instrument Detection Limits (Quarterly)

Lab Name: ITAS_ST._LOUIS_____ Contract: 68D30049__
 Lab Code: ITMO__ Case No.: 21882_ SAS No.: _____ SDG No.: MEJX85
 ICP ID Number: TJA1100_____ Date: 04/14/94
 Flame AA ID Number : _____
 Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.22		200	24.3	P
Antimony	206.84		60	26.5	P
Arsenic			10		NR
Barium	455.40		200	0.3	P
Beryllium	313.24		5	0.3	P
Cadmium	228.80		5	2.8	P
Calcium	393.37		5000	20.0	P
Chromium	267.72		10	2.9	P
Cobalt	228.61		50	3.2	P
Copper	324.75		25	3.4	P
Iron	259.94		100	14.5	P
Lead			3		NR
Magnesium	279.55		5000	56.3	P
Manganese	257.61		15	1.2	P
Mercury			0.2		NR
Nickel	231.60		40	12.1	P
Potassium	766.49		5000	3170.0	P
Selenium			5		NR
Silver	328.07		10	3.4	P
Sodium	589.00		5000	62.7	P
Thallium			10		NR
Vanadium	292.40		50	2.9	P
Zinc	213.86		20	4.0	P

0000031

Comments:

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Instrument Detection Limits (Quarterly)

Lab Name: ITAS_ST._LOUIS_____ Contract: 68D30049__
 Lab Code: ITMO__ Case No.: 21882_ SAS No.: _____ SDG No.: MEJX85
 ICP ID Number: _____ Date: 02/10/94
 Flame AA ID Number : PS200_____
 Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury	253.70		0.2	0.1	CV
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

0000032

Comments:

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Instrument Detection Limits (Quarterly)

Lab Name: ITAS_ST._LOUIS_____ Contract: 68D30049__
 Lab Code: ITMO__ Case No.: 21882_ SAS No.: _____ SDG No.: MEJX85
 ICP ID Number: _____ Date: 04/08/94
 Flame AA ID Number : TRAACS_800__
 Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

0000033

Comments:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No. _____ CERCLIS No. IL
Case No. 21882 Site Name Location: Ave. D + 118th St
Contractor or EPA Lab: ITAS Data User: B+V
No. of Samples: 4 Date Samples or Data Received: 5-17-94

Have Chain-of-Custody records been received? YES NO
Have traffic reports or packing lists been received? YES NO
If no, are traffic report or packing list numbers written on the chain-of-custody record? YES NO
If no, which traffic report or packing list numbers are missing?

Are basic data forms in? YES NO
No. of samples claimed: 4 No. of samples received: 4

Received by: Lynette Burnett Date: 5-17-94

Received by LSSS: Adrienne D. Harris Date: 5-18-94

Review started: 5-18-94 Reviewer Signature: *Matthew D. King*

Total time spent on review: 7.0 Date review completed: 5-23-94
+ 1.2 T.M.

Copied by: _____ Date: _____

Mailed to user by: AD Harris Date: 6-7-94

DATA USERS:

Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, ESCRL

Data received by: _____ Date: _____

Data review received by: _____ Date: _____

Inorganic Data Complete [] Suitable for Intended Purpose [] if OK
Organic Data Complete [] Suitable for Intended Purpose [] list
Dioxin Data Complete [] Suitable for Intended Purpose [] prblms
SAS Data Complete [] Suitable for Intended Purpose [] below.

PROBLEMS: Please indicate reasons why data are not suitable for your uses.

Received by Data Mgmt. Coordinator for Files Date: _____